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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,078	09/27/2003	Jose A Capote	11855/4	7484

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EXAMINER

HERTZOG, ARDITH E

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,078

Applicant(s)

CAPOTE ET AL.

Examiner

Ardith E. Hertzog

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 12-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date (<u>see para. 2.</u>) | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election – Restriction & Response to Amendment

1. This action is in response to the "Response to Restriction Requirement" filed September 9, 2005. Applicant's election of the invention of **Group II**, claims 12-20, in said response is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election **without** traverse (see MPEP § 818.03(a)). **In addition**, claims 1-11, directed to the invention of Group I, have been cancelled **without** prejudice in the amendment accompanying applicant's response. **Thus**, claims 12-20 are now pending.

Information Disclosure Statements

2. Receipt is acknowledged of the four information disclosure statements filed, respectively, February 9, 2004; November 10, 2004; March 28, 2005; and July 11, 2005. As each submission is in compliance with the provisions of 37 CFR § 1.97, each statement has been considered, per the enclosed PTO-1449 forms. Concerning **Reference C2 cited on the information disclosure statement filed November 10, 2004**, note the corresponding 35 U.S.C. § 102(b) rejection set forth in paragraph 10. below.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5),

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because Figure 1 includes reference character "114" which is not mentioned in the description.

4. The drawings are **also** objected to, in accordance with the enclosed PTO-948.

5. **Corrected drawing sheets in compliance with 37 CFR § 1.121(d), with amendment to the specification if/as necessary, are required in reply to the Office action to avoid abandonment of the application.** Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR § 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. **Any objection to the drawings will not be held in abeyance.**

Claim Rejections - 35 U.S.C. § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 14-17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Said claims are considered vague, indefinite, and/or confusing, due to an antecedent basis problem in claim 14 (upon which claims 15-7 at least indirectly depend): "the **gasified** liquid waste" (emphasis added) lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 U.S.C. §§ 102 & 103

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 12-20 are rejected under 35 U.S.C. § 102(b) based upon a public use or sale of the invention. Concerning **Reference C2 cited on the information disclosure statement filed November 10, 2004**, applicant's remarks regarding same—cited below—have been carefully considered:

Reference C2... describes a waste treatment system that was quoted in Taiwan in **September 2002**. Because the system was quoted in Taiwan,

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Applicants do not believe that it was the subject of a quotation "in this country" under 35 U.S.C. § 102, but are submitting it in an abundance of caution. (emphasis added)

Initially, it is respectfully noted that absent the **specific date** of the Taiwan quote, it may be reasonably presumed that it occurred **prior to** September 27, 2002 and therefore "more than one year prior to the date of application for patent in the United States" (i.e., September 27, 2003). **Furthermore**, with respect to "In This Country" clause of 35 U.S.C. § 102(b), MPEP § 2133.03(d) states:

For purposes of judging the applicability of the 35 U.S.C. § 102(b) bars, public use or on sale activity must take place in the United States. The "on sale" bar does not generally apply where both manufacture and delivery occur in a foreign country. *Gandy v. Main Belting Co.*, 143 U.S. 587, 593 (1892). However, **"on sale" status can be found if substantial activity prefatory to a "sale" occurs in the United States.** *Robbins Co. v. Lawrence Mfg. Co.*, 482 F.2d 426, 433, 178 USPQ 577, 583 (9th Cir. 1973). **An offer for sale, made or originating in this country, may be sufficient prefatory activity to bring the offer within the terms of the statute, even though sale and delivery take place in a foreign country.** The same rationale applies to an offer by a foreign manufacturer which is communicated to a prospective purchaser in the United States prior to the critical date. *CTS Corp. v. Piher Int 'l Corp.*, 593 F.2d 777, 201 USPQ 649 (7th Cir. 1979). (emphasis added)

Accordingly, given that the assignee of the instant application (Peat International, Inc.) has its Corporate Headquarters in the United States, with all instant inventors US citizens, it is respectfully submitted that it may be reasonably presumed that "substantial activity prefatory to a 'sale'" **has** occurred in the United States, with the Taiwan quote being **evidence** of "[a]n offer for sale, made or originating in this country", per MPEP § 2133.03(d). **Thus**, claims 12-20 are rejected under 35 U.S.C. § 102(b) based upon a public use or **sale** of the invention.

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11. Claims 12, 13 and 18 are rejected under 35 U.S.C. § 102(b) as anticipated by the *Plasma Sources Sci. Technol.* article entitled "Some plasma environmental technologies developed in Russia", by Rutberg, published August 2002 (reference W on the enclosed PTO-892, hereinafter "Rutberg 2002"). Rutberg 2002 teaches treatment of liquid supertoxic substances, including hazardous solvents, per instant 13, via low temperature plasma generators (AC plasmatrons), per instant independent claims 12 and 18 (see Rutberg 2002 abstract and section 4.2 at pp. A163-A164, noting Fig. 6 and corresponding discussion at p. A163, col. 2, last full para.). **Accordingly**, as each and every material limitation of instant claims 12, 13 and 18 is taught by Rutberg 2002, this reference anticipates same.

12. Claims 14-16 are rejected under 35 U.S.C. § 102(b) as anticipated by **or, in the alternative**, under 35 U.S.C. § 103(a) as obvious over Rutberg 2002. Rutberg 2002 is relied upon as just set forth, anticipating instant claims 12 and 13. Furthermore, all additional limitations of instant claims 14-16 appear to be taught by Rutberg 2002 (see Table I. at p. A159, which discloses plasma methods with syngas generation, per instant claims 14-15 (also note the second sentence in this article, wherein "plasma pyrolysis of waste with significant organic content" is specifically disclosed); and p. A163, col. 2, second full sentence, wherein carbon dioxide formation, per instant claim 16, is disclosed). **Accordingly**, as each and every material limitation of instant claims 14-16 appears to be taught by Rutberg 2002, this reference may be considered to anticipate same.

Alternatively, if instant claims 14-16 are not **fully** anticipated by Rutberg 2002, given that the **exemplary** treatment of liquid waste (i.e., the discussion of Fig. 6 at pp. A163-A164),

does not appear to actually involve formation of syngas, then methods falling within the scope of instant claims 14-16 would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, because, as just discussed, the broad teachings of Rutberg 2002 clearly encompass same.

13. Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rutberg 2002. Rutberg 2002 is relied upon as just set forth, anticipating or, at the least, having rendered *prima facie* obvious, instant claim 15. Further note that in the exemplary treatment of liquid waste (i.e., the discussion of Fig. 6 at pp. A163-A164), the use of a filter for treatment of aerosol particles, per instant claim 17, step (b), and additional treatment of the cleaned flue gases, prior to their ejection into the atmosphere, per instant claim 17, step (c), are disclosed. Rutberg 2002 fails though, to disclose the **specific** temperature ranges required by instant claim 17, step (a). **However**, Rutberg 2002 does teach cooling the flue gases—which are evidently initially at a temperature of 1400-1500°C—to a temperature of 380-400°C, followed by further cooling (see para. bridging pp. A163-A164). **Accordingly**, methods falling within the scope of instant claim 17 are considered to have been obvious to one of ordinary skill in the art, at the time of applicant's invention, because, absent contrary evidence, determination of suitable **additional** temperature ranges for use in the methods of Rutberg 2002—beyond those **exemplified**—is considered to have been within the level of ordinary skill. That is, when having utilized the Rutberg 2002 methods to form syngas—again, as at least **generally** taught by this reference—determination of appropriate processing temperatures is considered to have been within the level of ordinary skill, absent contrary evidence.

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14. Claims 19 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rutberg 2002 in view of WO 01/92784 (hereinafter "WO '784" (equivalent to US 2003/0167983 A1 cited on the International Search Report for PCT/US2004/031310, now US 6,763,772 B2)). Rutberg 2002 is relied upon as set forth in paragraph 11. above, anticipating instant claim 18. Instant claims 19 and 20 are not similarly anticipated however, in that Rutberg 2002 fails to disclose the "second source of hazardous liquid waste" and "second nozzle" limitations recited therein.

15. WO '784 teaches an apparatus adapted for processing liquid waste in a plasma torch based waste processing plant (see p. 1, first para.). In two separate embodiments, WO '784 teaches that multiple reservoirs (for the liquid waste) "may be required... when dealing with a range of liquid waste, including some liquids which may be explosive when brought together, and are thus fed separately (and possibly at different times) to the [(processing)] chamber..." (see p. 14, first para., as well as p. 16, full para.). **Thus**, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to have modified the liquid waste treatment methods of Rutberg 2002, so as to meet the "second source of hazardous liquid waste" and "second nozzle" limitations of instant claims 19 and 20, because, as just discussed, WO '784 teaches that such modifications may be necessary "when dealing with a range of liquid waste".

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are considered cumulative to or less material

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than those discussed above. US 6,182,585 B1 is cited on the International Search Report (ISR) for PCT/US2005/007904; US 5,798,497 is cited on the ISR for PCT/US2004/031310; and US 6,173,002 B1 is an equivalent of WO 01/79774 cited by applicant (also cited on the 2004 ISR). US 5,206,879 is an equivalent of EP 0 469 737 A2 cited by applicant, while US 6,817,338 B2 corresponds to US 2004/0159366 A1. US 5,222,448 is related to US 5,280,757 cited by applicant.

17. Any inquiry concerning this communication should be directed to Ardith E. Hertzog at 571-272-1347. The examiner can normally be reached on Monday through Friday (from about 8:00 a.m. - 4:00 p.m.).


18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman, can be reached at 571-272-1358. The central fax number for all communications is now 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. For any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AEH

September 30, 2005



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